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(54) Title: IMPROVED METHOD AND APPARATUS FOR CONCENTRATING A SLURRY

(57) Abstract: The current invention provides improved methods and filter stacks for concentrating a slurry of titanium dioxide. The improved filter stack comprises a series of filter disks and diverter trays arranged in parallel. The present invention provides an improvement over prior art filter stacks by using a substantially complete weld to attach a diverter plate to the diverter trays. The current invention also provides an improved method for pre-conditioning a filter stack. The improved method is designed to pre-condition and gradually prepare the filter stack for production of the desired slurry of titanium dioxide. Further, the current invention provides an improved process for preparing and transporting a slurry of titanium dioxide. Finally, the current invention provides a method for enhancing the lifespan of a filter stack. The method for enhancing the lifespan of the filter stack continuously monitors the flow rate and specific gravity of fluids produced from the filter stack and signals the need for flushing of the filter stack.



WO 2006/043936 A1